

LIF Human

Leukemia Inhibitory Factor Human Recombinant

CYK0474

Product Overview

Name	LIF Human
Accession(Primary)	P15018
Description	Leukemia Inhibitory Factor Human Recombinant

Target information (P15018)

Gene Name

About Gene Symbol

Background

Leukemia Inhibitory Factor (LIF) Background Leukemia Inhibitory Factor (LIF) is a cytokine within the interleukin-6 family. It is influential in the hypothalamus and involved in energy balance. LIF stimulates ACTH secretion and affects the stress and immune response in the body. Administration of LIF has been shown to correct low plasma ACTH and repair hypothalamic-pituitary-adrenal (HPA) axis responses.

Function and Applications of LIF LIF prevents the proliferation of myeloid leukemia cells by inducing their terminal differentiation. Beyond cancer, LIF influences bone metabolism, embryogenesis, and inflammation. Moreover, it supports the self-renewal of stem cells in culture by activating Stat3, thus preventing spontaneous differentiation, and is studied for potential benefits in fertility treatments.

Structure and Interactions LIF's structure consists of a four alpha-helix bundle similar to other hematopoietic cytokines. It interacts with components such as the ciliary neurotrophic factor (CNTF) through multimeric receptors, influencing both cytokine's effects on cells. This interaction is crucial for forming high-affinity binding sites that mediate their biological activities.